Chapter One: Study Overview and System Goals

Plan Purpose and Need

Vermont's Airport System is an integral component of the State's transportation network. The Airport System meets aviation and economic needs and links Vermont to the national transportation system. Aviation provides an important and efficient means of transportation for the movement of people and goods. The vision for the Vermont Airport System is to have safe, quality facilities and services that support transportation demand and meet economic development and quality of life needs in the State.

The Vermont Airport System and Policy Plan takes a strategic approach in identifying and evaluating the needs of the Vermont Airport System over the next 20 years. The primary goal of the system plan is to provide a framework that supports informed decisions related to planning and developing the State's aviation system. These decisions play an important role in assisting the Airport System to meet Vermont's needs.

Vermont's Airport System and Policy Plan will provide the Vermont Agency of Transportation (VTrans) with updated airport system planning products, policy recommendations, and a framework for evaluating the State's aviation infrastructure needs. The major elements of the study include:

- Airport System Plan – the system plan is conducted in a manner consistent with the FAA's Advisory Circular 150/5070-7, *The Airport System Planning Process*, dated November 10, 2004. The system plan culminates with a recommended development plan that identifies a prioritized, strategic approach for developing facilities at system airports to meet the goals and objectives defined for the system over the 20-year planning period.

- Policy Plan Update – the Policy Plan Update identifies policy-related recommendations that can improve the performance of Vermont's airport system and allow it to better meet the needs of system users and the State's citizens.

In addition, a review of the State's Airport Information Management System (AIMS), the compilation of data regarding instrument flight plans filed for Vermont airports, and a technical analysis of instrument approaches at the study airports were also completed in conjunction with the Airport System and Policy Plan.

The primary objectives of this update to the Vermont Airport System Plan are to:

- Identify and analyze aviation assets and needs of the State to assure that aviation performs the role needed for Vermont's economy and citizens.

- Provide continued guidance for development of a system of airports to meet the State's existing and future air transportation needs, identifying 5, 10, and 20-year projects and giving guidance to meet associated needs.

- Build consensus among public policy makers, airport sponsors and users so that the plan's recommendations can be more readily accomplished.

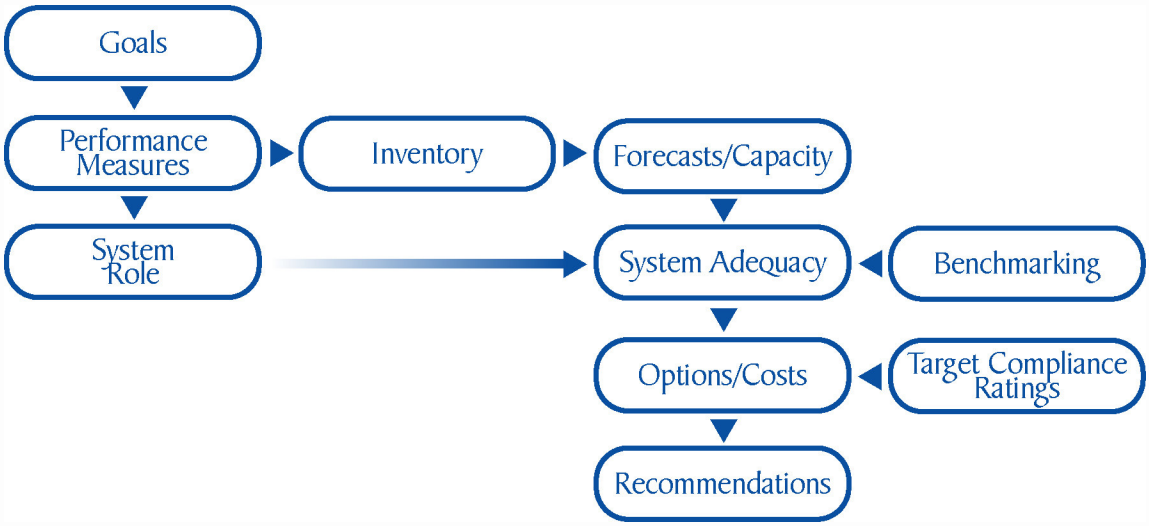
As part of the study process, system goals are established that describe an effective and efficient airport system for Vermont. These goals are translated into system performance measures and a series of benchmarks. The benchmarks are used subsequently to determine how well the existing system of public-use airports is currently performing. By employing a system benchmarking process, it is possible to evaluate Vermont's current public-use airport system and to identify its adequacies and deficiencies.

This process ultimately enables VTrans Aviation Division to identify projects that have the ability to move the Vermont airport system toward its established vision. The Airport System and Policy Plan will be used by the VTrans and airport sponsors to guide development of airports in Vermont.

System Plan Process

The Vermont Airport System Plan is being conducted in a series of separate, but related, technical steps. The process is graphically depicted in **Exhibit 1-1**.

Exhibit 1-1
Study Process



Initially, the first three steps include the following:

- Establish goals for the airport system to meet needs over the next 20 years.

- Identify performance measures to assess the current performance of Vermont's existing airport system. To facilitate the evaluation process, benchmarks that are specific to each performance measure are used.

- Establish factors to define each airport's current functional role in the State airport system. All airports do not need to have equal levels of development; facility and service objectives for airports in Vermont are determined based on each airport's current and future role in the system. As part of the system plan, Vermont's public use airports are stratified into current functional roles. Ultimately, the functional role that each airport may fill in the future is

identified based on system evaluation and analysis. The process of initial airport role assignment is addressed in Chapter Three.

Other steps in the system planning process are as follows:

- An inventory of the airports provides data on airport facilities and aviation activity. Inventory information is used in evaluating the current system and in identifying facilities that may be desirable. The inventory is also important in establishing each airport's current role in the system and evaluating current system performance.

- Forecasts, or projections of demand, are important when determining the system's ability to provide infrastructure to meet both current and future demand. Inventory data, as well as other demand driven components, are used to create the forecast of future aviation activity and to identify needed infrastructure. Demand projections consider information such as enplaned (boarding) passengers at commercial airports, based general aviation aircraft, and total annual operational levels at public use airports.

- The current system is evaluated to identify adequacies, deficiencies and overlaps. Facility and service objectives are identified for each functional level of airport. Airports should strive to attain their respective facility and service objectives, where possible, to achieve a system that meets State needs. Benchmarks used in this analysis are tied to performance measures. This step in the system plan culminates with the issuance of a "report card" for the Vermont Airport System.

- After the current system is evaluated, analysis is completed to determine what is needed for airports in Vermont to meet objectives established during the planning process. Costs for infrastructure, facility, and service enhancements are developed.

- Finally, a summary of findings and actions for Vermont to meet air transportation needs for the next 20 years is developed.

PLAN OUTREACH

Throughout the process, a collaborative effort is emphasized to obtain input and consensus on the study findings. Outreach and education are important and integral parts of the Airport System and Policy Plan. This outreach effort includes: System Plan Working Group; System Plan Advisory Committee; Regional Input Meetings;

and periodic collaboration with the Governor's Vermont Aviation Advisory Council. These efforts can be summarized as follows:

- The System Plan Advisory Committee provides input and guidance for the study. The committee consists of a subcommittee of the Governor's Vermont Aviation Advisory Council and the System Plan Working Group made up of VTrans staff. The System Plan Advisory Committee represents professional aviation, business, commercial and general aviation airports, government, and planning interests from across the State. This group meets at key project milestones to review and comment on the Airport System and Policy Plan.

- Regional Input Meetings were conducted near the conclusion of the study. The Regional Input Meetings provide an opportunity for interested parties to learn more about the System Plan and its recommendations and to allow input prior to finalization of the study. The times, dates, and locations for these meetings are provided on the VTrans Operations Division -Aviation Program's website and through various print and electronic media.

SYSTEM GOALS

The first step in the Vermont Airport System Plan is to identify specific goals for Vermont's airport system that can be used to direct the development of the system over the next twenty years. These goals help the system meet its established vision.

The System Plan Working Group met to discuss and identify goals for the system plan on June 16, 2005. At this meeting, specific goals for the system were identified and refined and system performance measures and associated benchmarks were established.

The following three goals and associated performance measures were identified and adopted to guide Vermont's airport system development and establish the framework for the Vermont Airport System Plan:

- **Accessibility –** To provide a system of airports that is accessible from both the ground and the air.

- **Development –** To provide an airport system that preserves and enhances existing infrastructure.

- **Safety & Security –** To promote a safe and secure system of airports.

System Performance Measures and Benchmarks

Performance measures, aligned with system goals, were identified. These performance measures are used to assess the current performance of Vermont's system of public use airports. For each performance measure, specific benchmarks were defined to identify adequacies, deficiencies, or potential surpluses in the current system.

Performance Measure: Accessibility

One goal of Vermont's aviation system is to provide a system of airports that is accessible from both the ground and the air. The ability of any airport system to meet the accessibility performance measure can be determined in several ways.

Ground accessibility can be measured by determining the coverage that system airports provide to all geographic areas of the State. The FAA standard of 30 minutes between NPIAS airports is used in the Vermont Airport System Plan to identify the percent of the State's population that is within a 30-minute drive time of various types of system airports and facilities. Accessibility to airports that provide coverage for a full range of the corporate/business general aviation fleet is an important system characteristic.

Air accessibility is also an important factor in measuring system performance. Airports that are equipped and capable of supporting operations in all weather conditions promote a system's air accessibility. Accessibility to airports from the air is increased by the presence of landing systems that enable aircraft to locate airports during periods of reduced visibility. System airports that have a precision approach offer the highest degree of accessibility, and airports with a non-precision approach provide a higher degree of accessibility from the air than do airports that are served only by a visual approach.

Benchmarks used to evaluate the system's ability to provide adequate air and ground accessibility include the following:

- Percent of Vermont's population and land area within 60 minutes of an airport with commercial service (Vermont and neighboring airports)

- Percent of Vermont's population and land area within 30 minutes of a 5,000-foot runway

- Percent of Vermont's population and land area within 30 minutes of a 5,000-foot long runway having a precision approach

- Percent of coverage provided by airports in each role category

PERFORMANCE MEASURE: DEVELOPMENT

Development of Vermont's aviation system should seek to preserve and enhance existing airport infrastructure. A good airport system should be adequately developed and planned, and provide airside and landside infrastructure and facilities to meet both current and future demand.

As part of the Vermont Airport System Plan, system airports are reviewed relative to facility and service objectives identified for their respective airport functional role category, as determined in Chapter Three. Established objectives for airfield pavement conditions for optimal use and safety are used in the Vermont Airport System Plan to evaluate the adequacy of the airport system as it relates to proper development and maintenance of airfield pavements.

Planning for future airport development and the ability to protect public investment in airports by controlling development around airports are important. Airports need to proactively plan for future development and implement land use planning guidelines to protect them from the encroachment of activities or land uses that are incompatible with their day-to-day operations. Proper planning on and around system airports generally increases the ability of the system to respond to development needs.

Specific benchmarks used to evaluate how well the aviation system is meeting the Development performance measure include:

- Percent of population and land area exclusively served (within 30 minutes) by a privately-owned airport

- Percent of system airports in each role category meeting facility and service objectives

- Percent of system airports in each role category having a PCI indices of "good" or better

- Percent of system airports in each role category with an Airport Layout Plan (ALP) that has been updated within the last 10 years

- Airport-related land use planning and zoning
    - Percent of airports in each category having local airport-related zoning
    - Percent of airports in each category that are included in regional land use plans that include airport-compatible land uses in the airport environs

PERFORMANCE MEASURE: SAFETY AND SECURITY

A third goal considered in this analysis is to provide a safe and secure system of airports. As part of the safety and security performance measure, the number of system airports that meet objectives related to addressing safety and security concerns is determined. Safety objectives include those established by the Federal Aviation Administration (FAA), VTrans, and the Transportation Security Administration (TSA). The current compliance of system airports to applicable airport design standards and security-related recommended practices are both evaluated in this performance measure.

To evaluate the adequacy of Vermont's airport system relative to applicable safety and security measures, the following benchmarks are used:

- Percent of airports meeting applicable FAA airport design standards
- Percent of airports meeting applicable VTrans or TSA security-related recommendations

OTHER POINTS

An important component of the Airport System Plan is to examine historic airport role categories used in the State, and if appropriate, recommend changes to the categories and identify the current role of each system airports.

Factors that could be considered in identifying current airport roles include:

- Data used in the Capital Facilities Program
- Recent findings of the economic impact study
- Existing airport facilities
- Airport activity levels

In addition, it is important that the Vermont Airport System and Policy Plan is informed by, and utilizes data from, the on-going FAA New England Regional Aviation System Plan (NERASP). Examples of data from the NE Regional Aviation System Plan that could be utilized include passenger forecasts produced for Burlington International Airport and general activity trends identified for the New England region.

NEXT STEPS

The groundwork established in this phase of the study is used to guide the remainder of the system plan. This chapter of the Vermont Airport System Plan provides a foundation for subsequent analysis. Information presented in this chapter is used to:

- Guide the collection of data and information at system airports during the inventory phase of the study.
- Determine how well Vermont's system of public use airports is currently performing.
- Identify where Vermont's airport system is currently adequate, as well as where it is presently deficient, or where overlaps may be present.
- Identify the need for change in the airport system to meet Vermont's future aviation needs.